Central Intelligence Agency

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DIRECTORATE OF INTELLIGENCE

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China: The Containerization Crunch

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Summary

The Chinese are trying to reduce transportation bottlenecks at key ports by improving their capability to handle containerized shipments. They have ignored, however, the development of inland container terminals and the necessary transportation infrastructure needed for handling international containers. Given the 5- to 10-year lead time needed to develop a coordinated distribution network, we believe China will be able to move only a limited number of containers inland over the next several years. In the long run, however, the modernization and expected increase in containerization at the ports could provide US carriers the opportunity and incentive to bring the cargo-sharing level closer to the one-third share stipulated in the US-PRC maritime agreement. US carriers now are unable to increase their share, largely because the size of US ships prevents access to China's shallow ports. The Chinese may be willing to partially alleviate this problem by agreeing to ferry individual containers from the shallow to the deeper ports and even to Hong Kong.

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Containerized Port Facilities

Since 1979, containerized port operations have expanded rapidly and China now offers container shipping services at seven ports, including Huangpu, Shanghai, and Xingang. The number of 20-foot equivalent units (TEUs) moving through Chinese ports over the past four years has increased nearly 400 percent. By 1985, the Chinese estimate that their ports will be able to move upward of 1 million TEUs, largely because of World Bank funds being used

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to construct seven new container berths at Xingang, Shanghai, and Huangpu. This is not an unreasonable goal as long as the Chinese continue to invest at current rates in containerization. 25X1

China's International Container-Handling Volume

	Number of Containers (TEUs)[a]	Total Metric Tons
1972	10,000	NA
1979	32,806	165,811
1980	64,300	388,000
1981	107,000	687,000
1982	160,000[b]	1,040,000[b]
1985	1,000,000[b]	6,500,000[b]

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Inland Distribution Deficient

China is not now able to move large numbers of containers beyond the port areas because it lacks adequate rail and highway facilities. In addition to the lack of equipment to handle large-scale movements of international containers, the railroads already are overloaded with port cargoes largely because of inadequate highways. As a result, cargo stuck on the docks forces delays in unloading other ships in the harbor. Beijing's Economic Daily reported that in the first half of 1982, coastal ports loaded a daily average of more than 1,400 freight cars but that cargo backlog still totalled nearly 1 million tons. The article also claimed that just by improving coordination between rail, road, and water transport systems, port handling capacity could increase by at least 30 percent. 25X1

[a]For accounting purposes, containers usually are reported in 20-foot equivalents (TEUs) derived by multiplying the total number of containers by their length in feet and dividing by 20.

[b]Estimate

Distribution of Port Cargo by Rail

Port	Percent of Cargo Distributed by Rail
Dalian	99.5
Qinhuangdao	98.0
Zhanjiang	91.0
Lianyungang	80.0
Qingdao	55.0
Xingang	52.5
Yantai	50.0
Huangpu	18.0
Shanghai	7.4

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There is increasing evidence that some Chinese agencies are making an effort to develop a limited inland distribution capacity. The China Container Company--established in 1980--can now handle 5-ton containers. China Ocean Shipping Agency also is expanding operations into the container field, but we believe it will be several years before it can efficiently handle 20-, 30-, and 40-foot international containers. China National Foreign Trade Transportation Corporation has begun purchasing container trailer tractors and trailers for 20- and 40-foot containers. These trailers will probably be used initially between the port of Xingang and the cities of Beijing and Tianjin. (see Annex A for more complete discussion)

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We believe that it will be difficult for individual transport sectors to develop, during this decade, a true intermodal transshipment system--where containers are easily transferred between and carried on different modes of transport. As a result, the full benefits from containerization gained in the port areas will be delayed for several years because containerized port cargo will continue to be loaded and unloaded at the ports and carried as break bulk on inland distribution networks.

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Containerization Under the Sixth Five Year Plan

The Sixth Five Year Plan (1981-1985) does not hold out much hope for improvement because it gives little attention to container needs. Most of the planned increase in rail capacity will probably be needed to accommodate rising domestic shipments and coal export commitments and will only marginally improve port service. We also believe that there will be no significant improvement in road transport during the Sixth Five-Year Plan because the Chinese apparently are not willing to give priority funding to this sector. Planning and development of container

technology during this period will be directed at the ports. The Chinese are to receive about $125 million in World Bank funds for development of seven new container berths. (Annex B contains a more detailed discussion of overall transport funding under this latest five year plan.) [redacted] 25X1

Impact on Foreign Carriers

China will continue modernizing container facilities at its ports, but present planning suggests that containerization will continue to far outpace the development of a coordinated inland distribution system. As a result, Chinese ports will continue to have congestion problems throughout this decade. Some foreign shipping lines, including those of the United States, will tend to avoid carrying cargo to Chinese ports because of this congestion, and also because of shallow draft conditions. (The limited number of grain unloading facilities will also tend to discourage US bulk carriers.) [redacted] 25X1

Nevertheless, the expected increase in containerization at the ports could provide US carriers the opportunity and incentive to bring the cargo sharing level closer to the one-third level stipulated in the US-PRC maritime agreement. A first step in this direction is the recent agreement to liberalize movement of empty containers between the ports of each side, and to and from ports of third countries. The Chinese may be willing to partially alleviate the shallow draft problem by agreeing to ferry individual containers from shallow to the deeper ports and even to Hong Kong if the United States is willing to make concessions such as opening additional US ports to Chinese ships. [redacted] 25X1

Annex A

Initial Attempts at Inland Distribution

Some effort is being made by Chinese organizations to develop at least a limited capability for inland distribution of containers. We believe, however, this effort will be retarded by road and rail deficiencies, and a continuing lack of cooperation and coordination between various transport modes. 25X1

In 1980, the State Economic Commission approved the establishment of the China Container Company which was to set up 17 freight offices to load and distribute containers. The company began operations by arranging transport for 1-ton containers and two years later it had moved up to 5-ton containers. However, the company by being established under the National Materials Bureau--which is far removed from any transport organization--has had difficulty arranging for distribution of containers. The regulations and noncooperation altitude of the Ministry of Railways has hindered the company's growth, according to the Chinese press. By last summer, only 179 railway stations would handle the company's containerized shipments. All the other railway stations would not even consider originating shipments of 1-ton containers because by regulation they were not designated container handlers. 25X1

China Ocean Shipping Agency (COSA)--also known as PENAVICO--is expanding operations into the container field. COSA--which acts as China Ocean Shipping Company's and foreign ships' agent in Chinese ports--now offers a limited inland container service through its newly established Beijing, Tianjin, Hebei Container Traffic Corporation. XINHUA, China's official news agency, noted that road transport of these containers will mainly occur between Beijing and Xingang. The news agency, however, said nothing about "door to door" operations while stressing the planned services--"dismantling and containerizing, loading and unloading, and storing, cleaning and repairing of containers." We suspect that this service deals largely with 1-, 3-, and 5-ton boxes and that it will be several years before COSA can efficiently handle the 20-, 30-, and 40-foot international containers that hold 20, 25, and 30 metric tons, respectively. According to COSA's business manager, new container forwarding facilities are being planned for a number of Chinese cities--including the river-port cities of Wuhan and Nanjing. 25X1

On the other hand, China National Foreign Trade Transportation Corporation (SINOTRANS)--operating under the Ministry of Foreign Economic Relations and Trade and responsible for arranging transportation for foreign trade goods--has begun purchasing container trailer tractors and trailers for 20- and 40-foot containers. Since last October, SINOTRANS reportedly contracted for 80 trailer tractors and 56 container trailers from

Japan, and has made inquiries about purchasing up to 600 more trailers. We expected these trailers to be used initially between the port of Xingang and the cities of Beijing and Tianjin. [redacted] 25X1

Good road conditions on the 175-kilometer long road network connecting Xingang and Beijing provide the best opportunity for the initial inland distribution of international containers. Currently, Xingang is serviced by two main highways and another is under construction. About 30 percent of Xingang's incoming cargo is now distributed over this road network. Shanghai's traffic generally will be limited to the city proper as roads are readied for containers. Traffic from the new Shanghai facility will have to be rerouted until a bridge is built sometime later this decade. At Huangpu, the inland distribution of containers is severely restricted by heavy traffic on the very narrow Guangzhou-Huangpu highway. [redacted] 25X1

Annex B

Transport Under the Sixth Five-Year Plan

Beijing has singled out transportation and communications for particular emphasis during the 6th Plan, but both investment plans and performance goals appear modest in relation to needs. During 1981-85 China plans to invest 29.8 billion yuan in transport and communications, mainly for railway and harbor construction. Some funding, probably less than 5 percent, will come from foreign sources. Japanese financing is directed at construction of coal-related rail and port facilities in North China. About $125 million in World Bank funds is earmarked for the development of container port facilities at Tianjin, Shanghai, and Huangpu. 25X1

Nominally, capital spending on railways is to be restored to the levels of 1971-75; but because of inflation, purchasing power of investment funds will be lower than in the earlier years. The plan calls for 17.3 billion yuan in capital construction (7.5 percent of total capital construction), a 23-percent increase over 1976-80, and a rail freight (tonnage) increase of 10.5 percent--2 percent per annum. During 1976-80, despite projections of strong and growing demand for transport services, Beijing reduced investment in railways to 14 billion yuan (6.3 percent of total). As a result, rail freight has stagnated. After peaking in 1979, rail freight volume fell in both 1980 and 1981, and last year there was little or no growth. Official data show similar trends in highway and water transport. 25X1

Much of the work on transportation is taking place in energy-rich North China where coal is being stockpiled because of lack of transport, and in coastal areas where heavy flows of commodities, largely for export, are congesting transport systems and ports. Beijing intends, by 1985, to increase the number of deepwater berths by one-third and provide added facilities to relieve port congestion. The Chinese press has reported that more than 100 ships a day are awaiting port clearance. 25X1

An inadequate inland transport network also limits the amount of cargo that can move through Chinese ports and is partly responsible for the congestion. A number of rail projects to improve this flow are scheduled for completion by 1985. However, because China has no immediate plans for improving the overall highway network, rails will continue to move the bulk of short-haul cargoes, which usually move by truck in more developed countries. Moreover, little attention has been given to planning for rail movement of international containers. We believe that most of the increased rail capacity will be needed to accommodate rising domestic shipments and coal export commitments and will only marginally improve port service. 25X1

In recent decades, with the exception of perhaps a few years in the early 1970s, Beijing has been reluctant to allocate needed investment funds to transportation and communications. Bottlenecks and congestion have been commonplace. Funding scheduled for the Sixth Five-Year Plan, although much higher than in 1976-80, suggests a continuation of these shortsighted policies. Railways were allocated only 1.44 billion yuan for capital construction in 1981, rather than an amount closer to 3 billion yuan--the amount suggested by plan goals. If funding remained similarly low in 1982, Beijing may be hard put to stay even. The severity of energy problems, however, probably means that rail projects related to the movement of coal and oil will continue to receive priority over container traffic. 25X1

Planning and development of container technology has been largely directed at the ports with very little attention given to inland distribution--especially by road. And we believe that there will be no significant improvement in road transport during the Sixth Five-Year Plan because the Chinese apparently are not willing to give priority funding to this sector. This sector lags far behind the other transport sectors in meeting the demands imposed on it by China's modernization efforts. 25X1

The current lack of a unified national highway system and the poor condition of the road network stems in part from decisions made over 20 years ago. Prior to 1958, the central government was responsible for planning and constructing trunk highways; the local governments were responsible for regional highways. But after 1958, the general highways bureau, the highway planning academies, and the highway engineering bureaus were shut down and the entire system of highway administration was abolished, with the technical files and data all abandoned. Since then, various authorities have administered different parts of the highway system. At present, nominal authority for trunk highway construction and maintenance is vested in the Ministry of Communications. Lately, provincial and municipal critics charge, probably with just cause, that the Ministry of Communications has no interest in the highway system and is only concerned with fostering water transport. In actuality, most of the responsibility for the planning, construction, and maintenance of roads falls to provincial and county authorities. 25X1

The current five-year plan continues this practice of having provincial and county authorities build roads largely with local laborers and funds, and without much guidance from central autorities. The Minister of Communications, Li Qing, admitted in a February 1983 China Daily article that the highway system does not meet the nation's need. Although the minister claimed that road maintenance and bridge upgrading would be stressed, limited funding made it impossible to expand greatly the highway network. Thus, most roadwork will continue to be done without

mechanization or technical knowhow by road teams organized at the county and provincial levels. We believe that the low funding and the lack of coordination will further delay development of inland distribution routes for containers. [redacted] 25X1

SUBJECT: China: The Containerization Crunch [redacted] 25X1

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